

**Notice of Allowability**

Application No.

10/644,696

Examiner

Nikita Wells

Applicant(s)

ADACHI ET AL.

Art Unit

2881

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to "Response" received 20 September 2004.
2. ☒ The allowed claim(s) is/are 7-26.
3. ☒ The drawings filed on 20 August 2003 and 20 September 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☒ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets" ) must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 102904.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

Nikita Wells  
Primary Examiner  
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### **Detailed Action**

1. According to the "Response" received September 20, 2004, the Applicant replaced the original claims 1-6 with new claims 7-26, made necessary revisions to the Specification, substituted a new Abstract, and changed the title of the invention to: "APPARATUS FOR PROCESSING AND OBSERVING A SAMPLE".

#### ***Examiner's Interview***

2. The Examiner initiated a telephone interview with the Applicant's representative Franco De Liguori on October 20, 2004 in order to clarify specific novel features of the Applicant's invention as opposed to existing prior art. Mr. De Liguori demonstrated to the Examiner's satisfaction that, with respect to the newly presented independent claims 7 and 21, the prior art that was used for the rejection in the first office action (Tokuda et al. – 2002/0050565 A1) is no longer valid as explained below.

#### ***Allowable Subject Matter***

3. Claims 7-26 are allowed.

4. The following is an examiner's statement of reasons for allowance:

With respect to the newly presented independent claim 7, prior art fails to disclose or make obvious an apparatus for processing and observing a sample, the apparatus comprising: a sample stage for supporting a sample at a preselected location of the sample; a focused ion beam irradiation system for irradiating the sample with a focused ion beam along an optical axis to cut out a portion from the sample; and a side entry stage disposed over the sample stage, the side entry stage having a microscope sample holder for picking up the cut-out sample portion directly from the preselected location of the sample and for supporting the sample

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portion, the microscope sample holder being configured to be removed from the side entry stage while supporting the sample portion and to be connected to an entry stage of a microscope device for observing the sample portion.

With respect to the newly presented independent claim 21, prior art fails to disclose or make obvious an apparatus for processing and observing a sample, the apparatus comprising: a sample chamber; a sample stage; a first focused ion beam irradiation system for irradiating the sample with a focused ion beam along an optical axis to cut out a portion from the sample; a side entry stage disposed over the sample having a removable sample holder for supporting the sample portion; a second focused ion beam irradiation system for irradiating the sample portion with a focused ion beam; and a single focused ion beam lens barrel having the first and second focused ion beam irradiation systems. The key elements missing from Tokuda et al., or any other prior art, is the side entry stage having a microscope sample holder for picking up the cut-out sample portion directly from the preselected location of the sample, and the use of a single focused ion beam lens barrel incorporating the first and second focused ion beam irradiation systems.

The dependent claims 8-20 and 22-26, are allowable by virtue of their dependence upon independent claims 7 and 21, respectively.

### ***Drawings***

5. The Applicant presented replacement Figures for Figs. 6 and 9, which are the approved by the Examiner.


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*Conclusion*

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikita Wells whose telephone number is (571) 272-2484. The examiner can normally be reached on 8:30 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The central fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nikita Wells, Primary Examiner  
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October 29, 2004